Lawrence Livermore National Laboratory

ISMS Roles, Responsibility, and Authority Training

for

Supervisors
Facility Managers
and
Facility Points of Contact

IS0004
PF0010-ISM

March 2000

Course Duration:	Self-paced
Task requirement:	LLNL ISMS Description, UCRL-AR-132791, October 1999
Target Audience:	LLNL Supervisors, Facility Managers, and Facility Points of Contact
Method of Instruction:	Self-paced programmed text
Preparation date: Review date:	March 2000 February 2001
Instructional Goal:	The student will define his or her personal ISM work authorization process roles and responsibilities.
Objectives:	1. Describe the work activity management structure for Programs, Facilities, Payrolls, and Services. 2. Define key terminology pertaining to organization and individual authority and responsibility. 3. Describe the elements of delegating work authority and responsibility. 4. Discuss ISM responsibilities associated with one organization providing a service for another organization. 5. Explain the basic differences between Work Authorization Level One and higher Work Authorization Levels. 6. Describe the function and the roles and responsibilities pertaining to the Integration Work Sheet (IWS).

Instructions

This course is designed for independent study. It is self-paced, and therefore the length of time it takes to complete this course will vary from one individual to another.

The course is presented in the following manner:

Question with informational points
This section is informational and requires you to read. It presents you with information regarding the posed question.

Discussion
This section expands on the information from the question and information above it.

Learning Check
At places in the booklet you will be asked to answer specific questions pertaining to the material presented in the text in order to validate your understanding of ISM concepts and process. At the end of the course you will take a comprehensive written test contained in the last section of the booklet. Successful completion of the course is dependent upon correctly answering all questions in this end of course test.

Upon completion of the course, and all activities contained within the booklet, take the written test and return the completed answer sheet to Carolyn Chezik in Hazards Control Education and Training Division (L-386) for scoring and validation of course completion. Passing score for the written test is 100%. Course completion will then be recorded in LTRAIN. The course booklet may be retained for future reference for ISM activities.

TABLE OF CONTENTS

References

Integrated Safety Management System Description
Lawrence Livermore National Laboratory
February 14, 2000,
UCRL-AR-132791 Version 3.0

Volume I, Part II, Chapters 1 and 2
Environmental, Health, and Safety Manual
Lawrence Livermore National Laboratory
June 4, 1999
UCRL-MA-133867

Selected Glossary and Definitions

Authorizing Individual
The person designated by an authorizing organization that is responsible for a work activity's technical, financial, administrative, and ES&H objectives. Also the individual authorized by the associate director (or his/her designee) to accept and manage, on the Laboratory's behalf, the risks associated with the work activity. This person authorizes the work to proceed only after all controls are implemented and confirmed.

Authorizing Organization
The Laboratory organization (e.g., directorate or group) responsible for a work activity's performance. This includes ensuring adequate funding and determining work priorities.

Commonly Performed by the Public
An activity with hazards commonly accepted by the public, the control of which require little or no guidance or training to perform the work safely.

Concur
The process of agreeing that specific work may be performed. It also means that the document met the criteria and expectations of the person concurring.

Directorate
The various Laboratory organizations (e.g., departments, divisions, groups, programs, projects, or offices) operating under the authority and management of a specific associate director (AD). This may also include equivalent organizations in the LLNL structure (i.e., Laboratory Site Operations).

Ensure
To cause something to be done, either by doing it or by following up on assignments and delegations to confirm they were completed. To guarantee a particular outcome. The Laboratory uses this term when referring to situations involving direct responsibility for activities, as in the case of the Responsible Individual.

Environment, Safety, and Health (ES&H) Professionals
The LLNL subject matter experts (SMEs), members of the ES&H Teams, and other staff with a formal background in ES&H topics.

Facility
A Laboratory building, group of buildings, or specific area that is managed by an individual or individuals designated by the facility associate director. (See also "Facility Manager" and "Facility Associate Director.") May also indicate a portion of a building, such as a laboratory or group of laboratories, dedicated to an operation. Groups occupying a specific facility are not necessarily under the same directorate's management. (See also "Program Associate Director.")

Facility Associate Director
The associate director (AD) with management responsibility for a particular LLNL facility. (The AD may or may not have responsibility for programmatic activities within the facility.) The facility AD must manage facility operations and infrastructure as well as the safety envelope. He/she must concur on work performed in the facility, communicate the facility's hazards, maintain the safety support systems, and identify a facility manager for each facility (see "Facility Manager").

Facility Manager
The manager (or managers) to whom the facility AD has delegated authority for ensuring that LLNL facilities are operated and maintained in a safe and efficient manner. The facility manager must prepare Facility Safety Plans (FSPs), review and concur with Operational Safety Plans (OSPs), and ensure operations within the facility meet the facility safety envelope.

Facility Point of Contact (Facility POC)
An individual appointed by the facility manager to help personnel with facility issues and ensure that work in the facility is compatible.

Graded Approach
A method that provides for varying levels of rigor and formality when applying controls commensurate with the hazards involved. To ensure that the depth of detail required and the magnitude of resources expended for operations are commensurate with each facility's programmatic importance and potential environmental, safety, and/or health impact.

Hazard
A source of danger (i.e., material, energy source, or operation) with the potential to cause illness, injury, or death to personnel or damage to a facility or the environment.

Integration Work Sheet (IWS)
A screening tool used to evaluate hazards, determine appropriate documentation and controls, establish the necessary review and authorization process, and address permitting and other regulatory issues. This worksheet is often used to document work authorization obtained after the prestart review.

Payroll Associate Director
The associate director (AD) who provides technical and specialty personnel to support program activities. This can occur either within a directorate or by matrixing personnel to support the activities of another directorate. The payroll AD must ensure these individuals' technical qualifications as well as provide them with basic job training and administrative support. The payroll AD may also be described as an administrative AD.

Payroll Supervisor
The supervisor associated with a payroll account. He/she is responsible for the general supervision of technical and specialty personnel who support program activities. The payroll supervisor is responsible for ensuring personnel have appropriate skills for their job assignments; gathering training requirements for the projects their personnel support; and tracking completion of training requirements. They also prepare performance appraisals, manage return-to-work and illness and injury issues, and are critical to the accountability and reward process.

Prestart Review
The review of a specific work activity's safety controls, resources, and work schedule. Using a graded approach, the prestart review must occur prior to initiating the work activity. No documentation requirement exists for the prestart review of activities commonly performed by the public.

Program Associate Director
The associate director (AD) who executes programmatic activities and provides program deliverables through control and use of funding. The program AD is responsible for work authorization, technical performance, safety, business management, and staff direction. He/she uses the available funding for personnel, facilities, and services in his/her own directorate and may matrix in personnel (i.e., technical and specialty personnel) who are matrixed from other directorates. The program AD can also lease space in another directorate's facilities.

Program Leader
The person designated by the program associate director to carry out a particular mission within a program. This person may have various titles such as project leader, lead experimenter, principal investigator, or equivalent. The program leader is responsible for implementing all controls that apply to experimental setups or programmatic activities.

Program Supervisor
An individual responsible for the day-to-day supervision of people performing programmatic work activities. Formerly known as the matrix supervisor.

Responsible Individual (RI)
The individual directly responsible for an operation, activity, or group of activities. The RI may be at any level within the organization and is formally identified by the activity's authorizing individual. In some organizations, this person is called the work supervisor. In most cases the RI will be directing the work of others as part of the operation or activity. Examples of RI job titles include supervisor, division leader, group leader, project leader, project engineer, principal investigator, facility manager, building coordinator, lead experimenter, and lead technician.

Safety Envelope
The parameters defining the limits for safe operation of a facility or operation. The range of conditions covered by the safety documentation of a process or facility under which safe operation is adequately controlled. Examples of parameters include the maximum amount of material that may be used or stored, the minimum operating temperature, and the maximum operating pressure.

Subject Matter Expert
An employee at LLNL that is a recognized authority in a particular field. This might include a person from Hazards Control, the Environmental Protection Department, Engineering, Plant Engineering, Chemistry & Materials Science, Computations, etc.

Work Supervisor
An individual responsible for the day-to-day supervision of workers performing facility or programmatic work activities. May be either a payroll or a program supervisor, as identified by the authorizing individual. See "Responsible Individual."

Lawrence Livermore National Laboratory

ISMS Roles, Responsibility, and Authority Training

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Facility Points of Contact

IS0004
PF0010-ISM

SECTION ONE

ISM IN OUR FACILITIES

March 2000

INTRODUCTION

It is the Laboratory's ES&H policy to perform work in a manner that protects the health and safety of employees and the public, preserves the quality of the environment, and prevents property damage. The environment, safety, and health are to be priority considerations in the planning and execution of all work activities at the Laboratory.

The Laboratory has published a safety philosophy. What are some key points of this philosophy that are important to you as a supervisor, facility manager, or Facility Point-of-Contact?

- Each supervisor is expected to ensure that all individuals reporting to him or her understand the safety expectations, governing work controls, and the means by which they can safely and successfully perform their assignments.

- Managers and supervisors are responsible for ensuring that an adequate system is in place to carry out work safely. For each work activity, an identifiable line management chain is ultimately responsible.

- Accidents are preventable through attention to hazards and appropriate action by each individual and the responsible organization.

Principle #1 of the DOE Integrated Safety Management System seven general principles should make it clear to you what your responsibility is:

Principle # 1

Line Management is responsible for safety.

What does this "responsibility for safety" mean to you?

- It means that YOU are being held ACCOUNTABLE for work being done safely and that you have taken the necessary steps to ensure the health and safety of our workers and the public, preserve the quality of the environment, and prevent property damage.

LEARNING CHECK

1. From your previous ISM training, state your definition of "line management."

Answer:

2. What does "*Line Management is Responsible for Safet**y***" mean to you?

Answer:

ISM IN OUR FACILITIES

At the facility level, following the ISM Guiding Principles and Core Functions ensures that work activities performed within a facility are within the facility's safety envelope and compatible with other facility operations. Therefore, concurrence by the facility's management is required before work can be done there.

◊◊◊

Who is involved with planning work that is to occur within a facility?

- The Facility personnel. They:
  - Know what goes on in the facility,
  - Know what hazards are associated with the facility, and
  - Know the people and equipment in the facility.

- And, the Work Activity personnel. They:
  - Plan the work activity within the facility,
  - Know the hazards associated with the planned work, and
  - Know the people and equipment to be used in the work.

What do the facility personnel do?

- Establish the parameters within which activities can be conducted within the facility.
- Through a formal process, define and document the type, size, and content of activities that are allowed in the facility.

What do the Work Activity personnel do?

- Define the work to be performed,
- Identify any hazards associated with the work, and
- Establish controls for those hazards.

What's the Bottom Line?

Essentially, the Work Activity is asking of the Facility, "Can we do this work in your facility?" If the work can be done, the Facility personnel, who know the facility and its operations and constraints, will concur. (If necessary, they will also ensure that additional controls and procedures are put in place to allow the work to be safely done.) After the Facility personnel concur, the Work Activity personnel (through the ISM process) will proceed to obtain a formal authorization to do the work.

The "bottom line" here is that Facility concurrence is required before a work activity can be authorized to be conducted in that facility.

Why is this important?

This ensures that the planned activity fits within the facility's approved safety envelope and that the collective set of activities being done in the facility doesn't exceed the safety envelope.

LEARNING CHECK

1. At the facility level, following the ISM Guiding Principles and Core Functions ensures that work activities performed within a facility are within the facility's _____and _____with other facility operations. For this reason, facility management _____is required before work can be performed in a facility.

2. Why is this important?
Answer:

Continue to next page!

PROGRAMS, FACILITIES, PAYROLLS, and SERVICES

What are they and what is their role?

The Laboratory divides its scientific and operating organizations into Directorates and other functional operating units, according to their scientific discipline or service. Each unit has its own management structure.

The Directorates and operating units can be further subdivided into

PROGRAMS or DEPARTMENTS

Each of these

- Have their own management structure
- Can include people, facilities, and other resources
- Control funding for work activity
- Are ultimately responsible for the conduct of the work
- Are responsible for authorizing work

What is the **FACILITY ORGANIZATION?**

The term, "Facility," refers to a building (or a group of buildings) with a common purpose, which are intended to host or support program work operations.

The **FACILITY ORGANIZATION**

- Is responsible for managing facility operations
- Provides concurrence that work may be performed in the facility
- Manages the facility's safety envelope
- Communicates the hazards associated with the facility to people planning work in the facility

LEARNING CHECK

Match the action to the organization:

A. PROGRAM or DEPARTMENT

— — —

B. FACILITY ORGANIZATION

— — — —

1. Provide concurrence work may be performed in the facility.
2. Manage the facility safety envelope.
3. Control funding for the work.
4. Communicate hazards associated with the facility
5. Ultimately responsible for the conduct of the work
6. Responsible for authorizing work

Continue to next page!

What is the **PAYROLL ORGANIZATION**?

The **PAYROLL ORGANIZATION** provides the personnel to support Program organization activities. The Payroll organization has administrative support responsibility and for ensuring the personnel's

- technical and specialty qualifications,
- base skills, and
- satisfaction of training requirements imposed by the Laboratory and by facilities and programs.

What is a **SERVICE ORGANIZATION**?

Service organizations provide specific resources or capabilities to Programs and Departments that aren't available within those Programs or Departments.

LEARNING CHECK

1. Who is responsible for ensuring the work activity personnel have the necessary base skills, technical and specialty qualifications, and satisfaction of all training requirements imposed by the Laboratory and by facilities and programs?

Answer:

Lawrence Livermore National Laboratory

ISMS Roles, Responsibility, and Authority Training

for

Supervisors
Facility Managers
and
Facility Points of Contact

IS0004
PF0010-ISM

SECTION TWO

ROLES, RESPONSIBILITY, AND AUTHORITY

March 2000

ROLES, RESPONSIBILITY and AUTHORITY

Managing work activities generally involves a chain of individuals responsible for ensuring that planned work objectives are successfully met within specified budget and time constraints. This management chain is also responsible for ensuring that the work activity is properly analyzed, controlled, performed, and monitored for Environmental, Safety, and Health (ES&H) issues. The management chain extends from the Laboratory Director to the individuals doing the work and can also pass through a number of organizations.

◊◊◊

Who at our Laboratory is responsible for managing the ES&H issues associated with work?

- The organization responsible for the work and which controls the resources is also responsible for managing the ES&H issues associated with that work.

    - At LLNL, this organization has historically been referred to as the "program" organization.
    - Under ISM, the "program" organization is now referred to as the "authorizing" organization, since it is responsible both for authorizing the work and for ensuring that the activities being managed are properly conducted.

Can this responsibility be delegated?

YES.... with conditions!

The responsibility for work authorization, along with the funds (or the authorization to use funds), and the ES&H responsibilities may be delegated to another organization, but:

· This decision must be formally documented and approved by the
  - program management that is delegating the work and
  - the program that is accepting the work.

SHOW ME THE MONEY!

A good way to understand who has the responsibility to authorize work is to remember that:

> "The authorizing organization is the organizational source of the money to do the work."

LEARNING CHECK

1. The organization responsible for the work and which controls the resources is also responsible for managing the ____ issues associated with that work.

Continue to next page!

WHAT DOES ISM REQUIRE OF THE AUTHORIZING ORGANIZATION?

The Authorizing Organization has many ISM responsibilities. Some of the more critical ones are:

- Ensuring that the seven general ISM principles and the five core functions are used in the work they manage.

- Defining the scope of work and the tasks to be performed.

- Identifying the work to be performed and any hazards associated with that work and the locations where it will be done.

- Identifying and implementing the appropriate controls for addressing the hazards associated with the work and the location of the work.

- Ensuring that the planned work falls within the established safety envelope for the facility where the work will be located.

- Formally authorizing the work, subject to the work plan and implementation of appropriate controls.

LEARNING CHECK

1. What organization is responsible for defining the scope of work and the tasks to be performed?

Answer:

2. What organization is responsible for identifying any hazards associated with the work to be done and the location of the work?

Answer:

3. What organization is responsible for identifying and implementing controls for the hazards associated with the work?

Answer:

4. What organization is responsible for formally authorizing the work to occur?

Answer:

Continue to next page!

WHO IS INVOLVED?

In Section One we discussed who is involved with planning work that is to occur within a facility. Let's take a closer look at some key participants.

Who in the Program or as we now call it, the "Authorizing" organization is responsible for authorizing the work and for ensuring that the activities being managed are properly conducted?

The **AUTHORIZING INDIVIDUAL**

Who is the **Authorizing Individual**?

- The Authorizing Individual is the person designated or authorized by an authorizing organization to:
  - Be responsible for a work activity's technical, financial, administrative, and ES&H objectives,
  - Accept and manage, for the Laboratory, the risks associated with the work activity, and
  - Allow work to proceed only after all controls are implemented and confirmed.

As part of the ISMS process, this individual will always be identified in the line management structure associated with the planned work activity.

Who in the Authorizing organization is responsible for the actual work activity?

The **RESPONSIBLE INDIVIDUAL**

Who is the "**Responsible Individual**?"

- The Responsible Individual is directly responsible for the actual work activity and is also the point-of-contact for that activity.

- This person is designated by the Authorizing Organization to direct the work and is responsible for implementing and maintaining all of the ISM elements.

LEARNING CHECK

1. Who in the "Authorizing" organization is responsible for authorizing the work and for ensuring that the activities being managed are properly conducted?

Answer:

2. Who allows work to proceed only after all controls are implemented and confirmed?

Answer:

3. Who is directly responsible for the actual work activity and for implementing and maintaining all of the ISM elements?

Answer:

Continue to next page!

WHO IS INVOLVED? -- The Facility Representatives

Remember that we said at the beginning of this course that there are two important groups involved with work occurring here at the Laboratory. Let's look at those individuals who represent the facilities where work will take place.

Who has the responsibility to ensure that a Laboratory facility is operated and maintained in a safe and efficient manner?

The **FACILITY MANAGER**

What are the ISM responsibilities of the **Facility Manager**?

· The Facility Manager is the person designated to be the authority for ensuring that a facility is operated and maintained in a safe and efficient manner. The facility manager is responsible for:

1. Preparing Facility Safety Procedures (FSPs), reviewing (and concurring with the approval of) Operational Safety Procedures (OSPs), and implementing facility-related requirements, as specified in the applicable OSPs, FSPs, and the Laboratory's ES&H Manual.

2. Assuring that personnel working in the facility comply with all facility-specific requirements, including training requirements.

3. Participating in the self-assessment plan for the facility and ensuring that the necessary corrective actions are taken.

4. Reviewing ES&H IWSs (Integration Work Sheets) for compliance with facility related requirements (such as those in the ES&H Manual, FSPs, Technical Safety Requirements, and OSPs), and ensuring compatibility of the planned work with other operations within the facility.

5. Evaluating proposed operational or activity changes against the facility's existing ES&H documentation (such as its authorization basis).

6. Communicating facility-related ES&H requirements to building residents and visitors, as appropriate.

7. Being the concurring official for planned facility work activities that exceed the concurring authority level of the Facility's Point of Contact.

Who is the **FACILITY POINT OF CONTACT** and what is his or her role?

· The Facility Point of Contact (FPOC) is an individual appointed by the facility manager to help personnel with facility issues and who ensures that work activities planned to be done in the facility are compatible with the facility's operations and safety envelope.

· The Facility Manager may impose limits on the FPOC's concurrence authority for work activities (and their associated hazards and controls) that exceed a certain level.

The **Facility Point of Contact**:

1. Acts as the interface among personnel who will be working in the facility and Facility Management. In this role, the FPOC:

   · Assesses planned work and concurs that the work activities are compatible with the facility's operations and (with proper controls) can be safely done in the facility.

2. Identifies hazards associated with the work location and communicates them to the responsible work management chain.

3. Establishes and communicates facility controls and any special conditions necessary to accommodate planned work activities.

4. Coordinates the facility's utility and system shutdowns, to ensure that the occupants and ongoing operations are not unduly disrupted.

5. Provides concurrence to the Responsible Individual and the Authorizing Organization that the planned work may proceed in the facility.

6. Monitors the work activities to assure that there are no hazards or unacceptable collateral effects to the facility or its occupants.

LEARNING CHECK

1. Who is designated to be the authority for ensuring that a facility is operated and maintained in a safe and efficient manner?

Answer:

2. Who is responsible for assuring that personnel working in the facility comply with all facility-specific requirements, including training requirements?

Answer:

3. Who is the concurring official for planned facility work activities that exceed the concurring authority level of the Facility's Point of Contact?

Answer:

4. Which of the following are responsibilities of the FPOC?

   a. Assesses planned work and concurs that the work activities are compatible with the facility's operations and (with proper controls) can be safely done in the facility.

   b. Identifies hazards associated with the work location and communicates them to the responsible work management chain.

   c. Both a and b.

Lawrence Livermore National Laboratory

ISMS Roles, Responsibility, and Authority Training

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Supervisors
Facility Managers
and
Facility Points of Contact

IS0004
PF0010-ISM

SECTION THREE

DELEGATING WORK AUTHORIZATION AND RESPONSIBILITY

March 2000

DELEGATING WORK AUTHORIZATION AND RESPONSIBILITY

In Section Two we mentioned that — to accomplish a planned work activity — work authorization and responsibility may be delegated to another organization, along with funds (or authorizations to use account numbers). This delegation of authority and responsibility may also include transferring the associated ES&H roles, responsibilities, and authority.

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How is work authorization and responsibility delegated?

- Formal delegations of work authorization and responsibility are only made from directorate to directorate — not from a directorate or sub-tier organization to an individual, or from an individual to another individual.

- This provision doesn't apply to **intra**-directorate delegations of work, unless specifically invoked by a directorate's internal policies and procedures.

How do we document this delegating of authority and responsibility?

- All delegations / transfers of work authorization authority must be documented, using a simple form (called the Program / Project Delegation Form found in Chapter 1, Appendix C of ES&H Manual) and a statement of work, and approved by the management of the delegating and accepting directorates.

- If less than the full set of roles, responsibilities, and authority (less than a complete work authorization and responsibility) are delegated, then a formal **Memorandum of Understanding** (MOU) shall be established between the organization delegating the authority and responsibility and the recipient organization.

This **MOU** will contain the following:

1. The scope of work covered by the work authorization delegation.

√

2. The allocated resources (personnel, space, equipment, time, and funds), to ensure that programmatic and safety requirements are sufficiently covered.

√

3. Specific roles, responsibilities, and authorities (RRAs) that are being delegated.

√

4. RRAs for handling safety-related incidents that might occur during the work.

√

5. Mechanisms for handling changes in work scope and resource requirements.

√

6. Issues regarding work close out and RRAs for dealing with residual safety concerns (such as legacy waste and long-term health effects), as applicable.

√

7. Resource issues with respect to the facilities that will be used. These can include any modifications required before the work can proceed and, after the work is completed, issues concerning restoring the facility to its "normal" condition.

√

LEARNING CHECK

1. How are delegations/transfers of work authorization authority documented?

Answer: Using a simple form found in _____ of the ES&H Manual and a ____ ____ _____, approved by the management of the _____ and _____ directorates.

2. If less than the full set of roles, responsibilities, and authority (less than a complete work authorization and responsibility) are delegated, then a formal _____ ___ _____ shall be established between the organization delegating the authority and responsibility and the recipient organization.

Lawrence Livermore National Laboratory

ISMS Roles, Responsibility, and Authority Training

for

Supervisors
Facility Managers
and
Facility Points of Contact

IS0004
PF0010-ISM

SECTION FOUR

PROVIDING SERVICE TO ANOTHER ORGANIZATION

March 2000

PROVIDING SERVICE TO ANOTHER ORGANIZATION

When an organization uses its own personnel to do planned work, it retains the primary ISM responsibilities associated with doing that work. The organization will complete any required ISM actions with its own personnel, obtaining assistance from ISM resource organizations, such as Environmental Protection (EPD) and Hazards Control (HC), as needed.

Work being done by one organization for another constitutes a critical subset of interactions between the service provider and the recipient. In this situation, it is essential to pay particular attention to ISM requirements.

◊◊◊

Continue to next page!

THREE SERVICE CATEGORIES HAVE BEEN ESTABLISHED

In organizing the services provided at LLNL, three service categories and their associated safety roles, responsibilities, and authority have been identified:

Service Category One — Regular Services

- The requesting organization (the client) essentially contracts for a service or product with the service provider.

- Work is done at either the requestor's or the service provider's facility.

- Little or no work on the project is done by the client organization.

What is an example of this category of service?

Plant Engineering services done in response to a requesting organization's Form One or Whiz Tag request are examples of this type of work.

Another example is Plant Engineering performing scheduled maintenance or institutionally directed work that normally would not have to be requested by the recipient.

Service Category Two — Emergency Services Response

- The service-providing organization authorizes the work.

- The recipient facility does not have any specific ES&H responsibilities during an emergency, other than responding to requests from the emergency response personnel.

What types of services are in Category Two?

Examples of such services are the Fire Department's emergency responses, cleanups of hazardous-waste spills, alarm responses, and emergency safeguards and security functions.

Service Category Three - Services Provided by Institutional Subcontractors

- The requesting organization is the authorizing organization and purchases the subcontractor's services.

- The work may be done at the subcontractor's facility, the requestor's facility, or at both locations.

WHO HAS THE SAFETY ROLES, RESPONSIBLITIES, AND AUTHORITY IN THESE SERVICE CATEGORIES?

In Service Categories One and Two, the service provider's management chain assumes the ES&H RRA for the service being provided. The client (recipient) shall provide information on any hazards associated with the work and/or the work location.

In Service Category Three, the organization requesting the service retains the ES&H RRA.

Continue to next page!

LEARNING CHECK

1. Match the service category to the definition:

   A. Emergency Services Response
   Category ____

   B. Regular Services
   Category ____

   C. Services provided by Institutional Subcontractor
   Category ____

2. In Service Categories One and Two, who assumes the ES&H RRA for the service being provided?

3. In Categories One and Two, the client (recipient) shall provide information on any _____ associated with the work or work location.

4. In Service Category Three, who has the ES&H RRA?

Answer:

IN RESPECT TO THE SERVICE CATEGORIES, WHAT ARE THE RESPONSBILITIES OF THE FACILITY WHERE THE WORK IS BEING DONE?

For Service Categories One and Three, the facility where the work is being done is responsible for:

- Identifying hazards associated with the facility / work location / environment.

- Establishing and communicating any safety controls and / or special conditions (including unacceptable collateral effects) that might be associated with the requested service.

- Once satisfied that the facility-related aspects of the work activity are properly planned and coordinated, grant permission to the service provider to proceed with the work.

LET'S SUMMARIZE THIS -- SIMPLY STATED

There are three categories of "services" provided at the Laboratory:

- Category One - One Laboratory organization asks another to do some work for them such as a Whiz Tag request.

- Category Two are emergency response services.

- Category Three service is work done by a subcontractor for a Laboratory organization.

In all service categories, the Facility where the work is to be done is responsible for identifying and communicating hazards associated with the work and environment. In addition, in Categories One and Three the Facility is also responsible for establishing and communicating any safety controls or special conditions they determine necessary in order for the work to be done.

In Service Category One, the service provider is responsible for:

- Identifying and analyzing hazards pertaining to the work activity.

- Informing the facility where the work is to be done of any collateral effects related to the work activity.

- Establishing an integrated set of controls for the work activity to reduce any associated residual risk(s) at the work location to an acceptable level.

In Service Category Three - it is the requesting organization that contracts with the subcontractor that maintains the ISM ES&H RRAs.

LEARNING CHECK

1. What specific ES&H responsibilities does a facility have when Category One or Three work is to be done in the facility?

Answer: 1.
2.
3.

2. In all cases, the facility where work is to be done is at minimum responsible for identifying and communicating hazards associated with the facility or its environment.
   True. __
   False. __

3. If your organization hires a subcontractor to do work for you, who has the ISM ES&H responsibilities for that work? The subcontractor or your organization?

Answer:

Lawrence Livermore National Laboratory

ISMS Roles, Responsibility, and Authority Training

for

Supervisors
Facility Managers
and
Facility Points of Contact

IS0004
PF0010-ISM

SECTION FIVE

WORK AUTHORIZATION LEVELS

March 2000

WORK AUTHORIZATION LEVELS

Under ISM, we recognize that we must plan, review, and have a work activity authorized before it can begin.

- A graded ISMS approach determines the level of rigor and formality to be applied when planning a work activity. Only the most basic ISM elements are needed to assess doing work associated with negligible hazards. Work situations with greater associated hazards require more comprehensive applications of the ISMS process.

The Laboratory has defined six levels of work, based on the associated hazards and types of controls necessary to safely do the work. The required planning and preparation for obtaining the work authorization becomes more complex with each level.

WORK AUTHORIZATION LEVEL ONE

This level of work authorization is defined in ISMS as ***an activity with hazards which are commonly accepted by the public, the control of which require little or no guidance or training to safely do the work***.

What does this really mean?

- This work does not present much risk, nor are there any real hazards associated with it.

- This type of work does not require any formal work controls or authorization process beyond the normal approvals for you to do the work by your management chain. In essence this work is self-authorized. However, since it is still possible to be injured or create harm while doing these activities, it is important to pay attention to safety.

· If in doubt whether the planned work and its associated hazards meet the criteria for Level One work, always lean toward the side of safety and the formal ISM process.

REMEMBER THIS!

The basic element of ISM, irregardless of a Level One or higher work authorization level, is to ask the questions

- **What am I about to do**?
- **Is there anything about this job or the work location that can hurt me**?
- **What do I need to do to control any hazards**?

And then, implement the controls and do the work safely.

LEARNING CHECK

1. Work with _____ associated hazards requires more comprehensive application of the _____ process.

2. What are the most basic ISM elements that apply even if the work is commonly performed by the public?

   -
   -
   -
   -

And then, _____.

Continue to next page!

What's more important then trying to define "work commonly performed by the public"?

ANSWER

Following ISM for work known not to be commonly performed by the public!

This is why Work Authorization Levels Two through Six need to be understood.

WORK AUTHORIZATION LEVELS TWO TO SIX

These work levels involve work that is not commonly performed by the public. As the complexity and impact, or hazards, increase, greater planning and controlling activities, and increasing levels of reviews and concurrence are required before the work may be authorized. In addition, an Integration Work Sheet is required. The following briefly outlines Levels Two to Six.

LEVEL TWO

Work activity which is just beyond that commonly performed by the public and which is already governed by existing safety documents.

- Appropriate work controls are defined in existing FSP, or provisions of the ES&H Manual.

- The identified Project Leader gives work approval, with the appropriate ES&H Team Leader and the Facility Point of Contact concurring, upon confirmation of controls

LEVEL THREE to SIX

These levels describe increasingly more complex and hazardous work, where additional controls and reviews and documentation are necessary.

- At a minimum for work at Level Three, a Level-C OSP may be prepared.

6. Level Three work approval is by the Project Leader with the concurrence of the FPOC and the ES&H Team Leader.

- At Level Six, a Level-A OSP is required. Work approval is by the Program AD with concurrence by both the ES&H Team Leader and the Facility AD.

More detailed information about all the various work authorization levels can be found in the **Health and Safety Manual, Volume 1, Part 2, Chapter 2, Appendix 2-A**.

LEARNING CHECK

1. Level Two work is <u>just beyond</u> Level One work and is already governed by existing safety documents such as ____, ____, or provisions of the _____.

2. Work authorization for Level Two is provided by the work _____ _____ with concurrence from the _____ and the _____.

3. Work Levels Three to Six describe increasingly more complex and hazardous work, where additional _____ and _____ and _____ are necessary.

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SECTION SIX

INTEGRATION WORK SHEETS

March 2000

INTEGRATION WORK SHEETS

An Integration Work Sheet (IWS) is intended to ensure that the hazards associated with a work activity are identified early in the project planning stage and to facilitate applying the appropriate controls. To ensure that the activity-related hazards are properly controlled, the IWS may refer to existing FSPs, OSPs, and provisions of the ES&H Manual, or identify the need for a further ES&H review.

◊◊◊

Is an IWS required for all work?

An IWS is required for all work greater than that commonly done by the general public (work levels two to six).

Is it necessary to do an IWS each time the task is performed?

It is not necessary to review each task and generate a new IWS every time it is done, only when a significant ES&H-related aspect of the work activity extends beyond what has previously been analyzed and authorized by the Authorizing Organization.

· **A new IWS may also be required if changes occur in the**:

- Location of the work activity.
- Personnel doing the work.
- Equipment being used.
- Management chain that supervises or authorizes the work activity.

LEARNING CHECK

1. What is the purpose of the IWS?
Answer:

2. An IWS is required for what Work Authorization levels?
Answer:

3. The same IWS may be used again for the same type of work as long as there are no significant ES&H changes or changes in
   a.
   b.
   c.
   d.

WHO IS RESPONSIBLE FOR PREPARING THE IWS?

The **Authorizing Organization**

Can the preparation of the IWS be delegated?

Yes. Refer back to Section Three for a discussion on delegating all or parts of work authorization and responsibilities.

Continue to next page!

THE IWS PROCESS

Once the determination is made that the work involves activities beyond what is commonly performed by the public, the work must be reviewed and an IWS prepared.

- Unless the responsibility has been delegated to another organization, the Authorizing Organization usually designates the **Responsible Individual** to prepare the IWS.

- Project participants (including people who will do the work) and ES&H professionals shall be used, as necessary, to help recognize the potential hazards and identify the associated controls to be included on the IWS.

- The Authorizing Individual identifies the appropriate review and authorization level and confirms that the resources are adequate to accomplish the technical objectives, consistent with ISM requirements. If they are not, either the scope of work will need to be modified in order to fit the budget, schedule, or staffing — or additional resources will have to be obtained. The Authorizing Individual also ensures that a management chain is clearly identified and documented, and that ISM requirements are followed.

- The **Facility Point of Contact** evaluates the IWS to ensure that the work is within the facility's safety envelope and is compatible with other work activities in the area. If facility modifications are required for the proposed activity, the FPOC will also coordinate with the Responsible Individual.

- The **Responsible Individual** must ensure the **hazards are properly analyzed** and all applicable **controls are identified**.

QUICK SUMMARY

The Authorizing Organization is responsible for ensuring the following IWS tasks are performed:

1. Completion of information contained in the IWS. The activity or, if applicable, the particular phase of the activity for which an ES&H evaluation is requested must be fully described.

2. Identification of all applicable hazards and environmental concerns in the hazards list.

3. Identification of the applicable controls. This includes controls identified by the Laboratory's subject matter experts (SMEs) from the Work Smart Standards (WSS) and those identified in the ES&H Manual). The ES&H Team Leader review shall be included in the IWS process to ensure the controls identified are adequate.

Continue to next page!

THE NEXT STEPS

Once the Responsible Individual has completed he IWS it is submitted to the Facility Point of Contact and the Authorizing Individual.

· The Facility Point of Contact reviews the IWS to ensure documentation reflecting:

- a full description of the work, work location, hazards associated with the work, and hazards associated with the work location and environment have been addressed

- all necessary controls have been identified and put in place

- the IWS is properly completed.

The FPOC then signs the IWS providing concurrence the work may begin in the facility.

· The Authorizing Individual reviews the IWS to ensure:

- all reviews and assessments are complete and documented

- the IWS is complete and signed by all involved individuals

- all controls are confirmed to be in place and implemented

The Authorizing Individual then signs the IWS authorizing the work to begin.

LEARNING CHECK

1. What is the purpose of the IWS?
Answer:

2. An IWS is required for what Work Authorization levels?
Answer:

3. The same IWS may be used again for the same type of work as long as there are no significant ES&H changes or changes in
   a.
   b.
   c.
   d.

4. Which organization and what individual are responsible for developing and completing the IWS?
   a.
   b.

5. Why are the people who will do the work and Laboratory ES&H professionals used to help develop the IWS?
Answer:

6. The FPOC evaluates the IWS to ensure:
   a. The work is compatible with the facility's safety envelope and other work being conducted in the facility.
   b. All hazards associated with the work and the location of the work have been identified.
   c. Controls have been developed and implemented for the hazards.
   d. All of the above

SAMPLE IWS ATTACHED

A blank Integration Work Sheet is attached at the end of this section. Take a few minutes to familiarize yourself with the contents, format, and terminology.

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SAMPLE INTEGRATION WORK SHEET

March 2000

Integration Work Sheet No.___ **Date: _____**

Responsible AD: _____ ***Work Acct No.*** _____

1. Responsible Individual:	2. Ext.	3. L-Code:
4. Authorizing Individual:	5. Facility Point of Contact:	6. ES&H Team Leader:
7. Authorizing Organization:	8. Intended Start Date:	9. Est. Completion Date:

10. [ ] Management chain for proposed activity attached (organizational chart)
[ ] Management chain for proposed activity as follows:

11. Location of proposed activity (facility / area, room(s), offsite location):

12. Emergency notification: Name: Work Phone: Home Phone:	13. Alternate Emergency notification: Name: Work Phone: Home Phone

14. Activity / Operation type:
[ ] Attended % of time: _____%
[ ] Unattended % of time: _____%
[ ] Working Alone % of time: _____%

15. Name of proposed activity / operation / project:

16. Description of proposed work activity / operation / project:

17. Names of qualified personnel and / or subcontractors assigned to this proposed activity:
(Identify the payroll organization for each individual if different from yours)

18. Associated Hazards—Environment, Safety & Health

☐ **BIOLOGICAL**
- ☐ Infectious materials (pathogens, human tissue & fluids)
- ☐ Other biohazards (protein toxins, recombinant DNA, exposure to sewage)
- ☐ Sharps/ needles
- ☐ Human use experiments
- ☐ Animals
- ☐ Food for human consumption

☐ **CHEMICAL**
- ☐ Flammable, volatile or fuming material >5 gal.
- ☐ Toxic materials (acutely toxic, irritants/corrosives, systemic toxicants, toxic gases)
- ☐ Reactive materials (air/water sensitive, pyrophoric thermally, shock or friction sensitive, perchlorates)
- ☐ Pesticides
- ☐ Chemicals of "Special Concern" (beryllium, carcinogens, mutagens, fluorine, inter-halogen compounds, lead, asbestos, reproductive hazards, other)
- ☐ Hazardous chemicals, Not Otherwise Specified

☐ **CONSTRUCTION/MAINTENANCE/ MECHANICAL EQUIPMENT/WORKING SURFACES**
- ☐ Construction/demolition (excavations, shoring, underground utilities, asbestos removal, welding, work at heights)
- ☐ Safety system maintenance (deactivated alarms, interlock bypass)
- ☐ Cranes/hoists (critical lifts, high work on cranes)
- ☐ Powered industrial trucks (critical lifts)
- ☐ Machine tools/powder-actuated tools
- ☐ Moving large or heavy items
- ☐ Contaminated equipment (mercury, PCB, radioactive material, lead)
- ☐ Stressed mechanical systems
- ☐ Unusual equipment requiring special approvals (scuba diving, etc.)
- ☐ Walking/working surfaces/heights/falling objects

☐ **ELECTRICAL**
- ☐ Batteries (with short circuit >10 amps or >50 volts)
- ☐ Capacitors (>10 joules of electrical energy)
- ☐ Electrical power source (>140 volts or >30 amps or containing >10 joules of electrical energy, or systems with 3 or more sources of electrical power.)
- ☐ Energized electrical equipment (work on exposed, energized electrical equipment >50 Volts, 20 Amps, or an operation using portable equipment at other than ground potential)
- ☐ Static electricity
- ☐ Hi-Potential testing (>500 volts)

☐ **EXPLOSIVES/FIREARMS**
- ☐ High explosives, propellant, pyrotechnic or other similar energetic material
- ☐ Mock explosive
- ☐ Unstable material
- ☐ Firearms

☐ **PRESSURE/NOISE/HAZARDOUS ATMOSPHERES**
- ☐ Pressure vessels/ systems (low pressure system <1500 psig -liquid or <150 psig gas, pressure system >1500 psig -liquid or >150 psig gas, ≥100kj stored energy, vacuum systems, cryogens)
- ☐ Noise (>85 dB)
- ☐ Confined spaces (high-hazard, low-hazard)
- ☐ Hazardous atmospheres (asphixiants, hydrogen gas, oxygen deficiency, work requiring a respirator)

☐ **WORKER CAPABILITY**
- ☐ Lifting manually >30 pounds
- ☐ Work involving repetitive motion
- ☐ Computer use >4 hrs/day
- ☐ Hand tools
- ☐ Work with mechanical equipment
- ☐ Work alone
- ☐ Work after hours
- ☐ Work in remote locations
- ☐ Work involving individuals <18 years of age
- ☐ Work requiring specific unusual physical capabilities

18. Associated Hazards—Environment, Safety & Health (cont.)

☐ **IONIZING/NON-IONIZING RADIATION**
- ☐ Non-fissionable radioactive material (encapsulated, non-encapsulated)
- ☐ Fissionable radioactive material (encapsulated, non-encapsulated)
- ☐ Radiation-generating devices (RGD) (accelerator, x-ray machine, exempt RGD)
- ☐ Non-ionizing radiation –lasers/optical (Class 2-3a, 3b, 4, UV, visible light, infrared)
- ☐ Magnetic fields>3kHz
- ☐ Radio frequency/microwaves sources >3 kHz

☐ **TRANSPORTATION**
- ☐ Hazardous materials transportation
- ☐ Non-hazardous materials transportation (>routine operations)
- ☐ Use of vehicles (aircraft, auto/truck/ATV, boat)

☐ **WEATHER/TEMPERATURE**
- ☐ Weather exposure or temperature extremes (harsh weather, lightening, temperature extremes)

☐ **EMERGENCIES/EARTHQUAKES/FIRE**
- ☐ Emergencies (unique emergency response situations)
- ☐ Earthquakes (unique seismic safety issues)
- ☐ Fire (unique fire safety issues)

☐ **AIR**
- ☐ Discharge to air (air contaminates)

☐ **DISCHARGE TO WATER**
- ☐ Sanitary sewer/waste water (>routine use requirements)
- ☐ Storm water (>normal impacts)

☐ **ECOLOGICAL AND CULTURAL RESOURCES**
- ☐ Disturbance to existing structure or area (soils, drainage channel, arroyo, East Gate or Corral Hollow floodplain area, natural habitats, wetlands, undisturbed area)
- ☐ Disturbance to cultural resources

☐ **REMEDIATION AND MONITORING**
- ☐ Soil(possible impacts)
- ☐ Groundwater(possible impacts)
- ☐ Well drilling or other below ground activities
- ☐ Vegetation(possible impacts)

☐ **STORAGE TANKS**
- ☐ Retention tank
- ☐ Underground storage tanks

☐ **WASTE**
- ☐ Hazardous waste
- ☐ Radioactive waste (mixed waste, waste with no disposal option)
- ☐ Medical waste
- ☐ PCB waste
- ☐ Solid wastes (>routine quantities)

☐ **OTHER HAZARDS NOT LISTED**
- ☐ List Below:

_____
_____
_____
_____
_____
_____

19. Specific Hazards checked above: (chemicals, materials, isotopes, equipment, trenching, etc.):

20. Required ES&H controls: (shielding, interlocks, barriers, gloves, emergency response, respirators, etc.) (See also 27)

21. Required medical certification/surveillance: (laser eye exam, hearing conservation, respirator, etc.)

22. Required or recommended ES&H training:

23. ES&H Professionals and others who provided assistance/guidance:

24. As the RESPONSIBLE INDIVIDUAL, I believe the proposed activity/change to an existing activity:

[ ] is a common laboratory activity or within the approved safety envelope and does not require any additional ES&H review or procedure.

[ ] is adequately covered by our existing controls and documentation delineated below, which will be required reading for all individuals participating in this activity:

_____

_____

[ ] may require additional ES&H review and documentation

[ ] potentially increases or changes the hazard, requires or modifies a permit, increases hazardous waste, or modifies the potential environmental impact.

[ ] involves special and unusual activities or equipment not completely covered by our existing ES&H review or documentation. See attachments (list).

25. As the RESPONSIBLE INDIVIDUAL, I have reviewed the hazards and agree to implement the controls identified in this IWS

_____ _____

Responsible Individual signature **Date**

26. AUTHORIZING INDIVIDUAL'S work authorization level assessment:

Work Authorization Level (circle): 2 3 4 5 6

Additional ES&H documentation needed:

[ ] None [ ] Hazard Assessment [ ] SOP [ ] Level C OSP [ ] Level B OSP (offsite)

[ ] Level B OSP [ ] Level A OSP [ ] SAR/TSR/SAD/OSR/USQ/USI [ ] Other (specify)

27. Additional requirements that need to be met before work can commence:

28. Record of Authorization for Work to Begin: IWS No. _____

[ ] The proposed work falls within the safety envelope of the facility/area and may commence once authorized

_____ _____

Facility Point of Contact Concurrence **Date**

_____ _____

ES&H Team Leader Concurrence **Date**

[ ] The controls have been confirmed to be in place and this proposed activity is authorized to proceed.

_____ _____

Authorizing Individual Approval **Date**

Send copies of this IWS to: the Responsible Individual, Facility Point of Contact, ES&H Team Leader, and payroll supervisors of the employees performing this work activity.

Form date 3/3/00

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SECTION SEVEN

SUMMARY

March 2000

SUMMARY

We have explained the structure of **Programs**, **Facilities**, **Payrolls**, and **Services**, and have defined key terminology pertaining to **roles**, **responsibilities**, and **authority**. The basic idea to remember is that there will always be one organization and one individual responsible for ensuring that the work will be correctly and safely done, even though many other individuals are responsible for various pieces of the process.

We have also discussed applying a "**graded approach**" to planning work activities and defined the **levels of work** that are used when implementing ISM. Remember that as the level of hazards or impact associated with a work activity increases, a greater level of ISMS is needed.

REVIEWING THE ISM PROCESS IN PLANNING A WORK ACTIVITY

A. Before work can be authorized, the following organizations and individuals are to be involved in analyzing potential hazards, identifying controls, and confirming readiness:

1. The person authorizing the work activity (the **Authorizing Individual**).

2. The person responsible for ensuring that the facility's safety envelope is not exceeded (the **Facility Point of Contact**).

3. The person who will be supervising the work (a Work Supervisor, or other **Responsible Individual**).

4. When possible, the **personnel who will be doing the work**.

5. In addition, the personnel who will be providing safety support (ES&H Team) are brought into the review and concurrence process to ensure that the hazards are adequately analyzed and the applicable controls are properly identified.

B. The **authorizing organization** is responsible for ensuring that ISM principles and functions, and the graded approach, are followed by the personnel who will be managing and doing the work.

C. The graded approach process includes:

1. Identifying the work to be done. Where possible, when specific work activities are being defined, worker involvement is to be encouraged.

2. An evaluation to determine if the work involves only activities commonly done by the public. If a worker is unsure about the hazards or the applicable controls he or she is responsible for consulting with the work supervisor, the Facility Point of Contact, or the ES&H Team about them. It is important that a reasonable effort be made to analyze the hazards, so that the proper levels of review, documentation, and authorization are used before work begins.

3. Consulting with the Facility Point of Contact to determine the requirements imposed by the facility in which the work is to be done.

4. If the work involves activities that are not commonly done by the public, evaluate the work and document the process on an IWS. Follow the technical chapters of the ES&H Manual to determine what controls are appropriate and to identify whether an OSP or FSP is required. In situations where the requirements are complex or ambiguous, consult with the appropriate ES&H Team (or subject-matter expert) for assistance in interpreting the requirements and developing ways to satisfy them.

5. In conjunction with the person who will be authorizing the work, facility management, and the ES&H Team (if needed), determine the appropriate review and authorization level.

6. When satisfied that the work can be safely done, and that all of the hazards have been identified and the necessary controls put in place, the work authorization can be given.

This course provides you, the Facility Point of Contact, information about ISM roles, responsibilities, and authority. Documents and resources that were used to develop this course and that might be useful to you are listed at the beginning of this booklet. It is suggested you keep this course booklet to use as a future reference when working within the ISM process.

Now, to complete this course, please take the short quiz which can be found online at

www-training.llnl.gov/wbt/hc/RRA/RR01.html.

Thanks, and work safely.